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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,945	12/28/2000	Turkka Keinonen	297-010033-US(PAR)	7516

7590
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Fairfield, CT 06430

11/06/2002

EXAMINER

CRENSHAW, MARVIN P

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/750,945

Applicant(s)

KEINONEN ET AL.

Examiner

Marvin P. Crenshaw

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 10. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grover et al. in view of Yu et al.

Grover et al. teaches a keyboard arrangement (Fig. 1) including several keys (202) for inputting characters by pressing the keys and wherein at least one key is used for entering at least two different characters (See Fig. 1, 202), a storage for words (608) of a defined language, a memory (605) in which alternative character strings are formed, wherein sequential characters in a string relate to sequentially pressed keys, each character in a string being one alternative of a pressed key, a processor (604) for comparing the character strings to the words of a defined language to achieve a comparison result and means for deducing the input character based on said distribution of pressure on the key and on the comparison result. However, Grover et al. doesn't teach a keyboard arrangement comprising means for detecting alternative sectional distributions of pressure on the at least one key as recited in claims 1, 4, 5, 7, 12 and 18, triangular shaped keys for a keyboard as recited in claim 6, the keyboard arrangement having the keys to form two rows are interlaced as recited in claim

8, the keys form a first row of keys and a second row of keys as recited in claim 9.

Yu et al. teaches a keyboard arrangement (Fig. 3) comprising, means for detecting alternative sectional distributions of pressure on the at least one key. Yu et al. teaches a keyboard arrangement (Fig. 3) having means for detecting alternative sectional distributions of pressure comprise at least two (B and T) pressure sensitive and or touch sensitive detectors attached to different locations of the key, a keyboard arrangement (Fig. 3) characterized that said means for detecting alternative sectional distributions of pressure comprise a movement sensitive detector attached to the key, a keyboard arrangement (Fig. 1) that has a key in triangular shape or has three arms, a keyboard arrangement having keys form two rows (Fig. 2) of keys and the keys of the two rows are interlaced, a keyboard arrangement (Fig. 2) characterized that the keys form a first row of keys and a second row of keys, the two rows of keys comprising three rows of characters marked on the keys, wherein the upmost row of characters is marked to the first row of keys, the middle row of characters is marked alternately to the first and the second row of keys and the lowest row of characters is marked to the second row of keys.

With respect to claim 1,4,5,7,12,13 and 18 it would be obvious to modify the keyboard arrangement of Grover et al. to have a keyboard arrangement comprising, means for detecting alternative sectional distributions of pressure on the at least one key as taught by Yu et al. to more efficiently arrange the different letters or alphabets used in the computer.

With respect to claim 6, it would be obvious to modify the keyboard arrangement of Grover et al. to have a keyboard arrangement having a triangular shaped keys for a keyboard as taught by Yu et al. to more efficiently arrange the different letters or alphabets used in the computer.

With respect to claim 8, it would be obvious to modify the keyboard arrangement of Grover et al. to have a keyboard arrangement having a keyboard arrangement having the keys to form two rows are interlaced as taught by Yu et al. to more efficiently arrange the different letters or alphabets used in the computer.

With respect to claim 9, it would be obvious to modify the keyboard arrangement of Grover et al. to have a keyboard arrangement having the keys form a first row of keys and a second row of keys as taught by Yu et al. to more efficiently arrange the different letters or alphabets used in the computer.

With respect to claim 2, Grover et al. teaches a keyboard (Fig. 1) arrangement comprising means for deducing the input character also based on linguistic disambiguation (See col. 4 lines 15-25).

With respect to claim 11, Grover et al. teaches a keyboard (Fig. 1) characterized in that it is a keyboard of a computer.

With respect to claim 15, Grover et al. teaches a method in accordance wherein comparing the character strings (See col. 4 lines 15-65) to the stored words comprises applying an algorithm based on comparison with known vocabulary, probability of successive characters, frequency of words in language, sentence structure, topic and/or paragraph text.

With respect to claims 3 and 16, a keyboard arrangement characterized in that it is substantially a QWERTY-keyboard, QWERTY-keyboard would be obvious because it is the standard type keyboard used for typing.

With respect to claim 10, having the keyboard as a keyboard for a mobile station would be obvious because all keyboards mobile to a certain degree.

With respect to claim 17, having a method wherein at least one key is pressed in one of at least two alternative ways on a mobile station would be obvious because it would be more efficiently arrange the different letters or alphabets on the mobile station.

Response to Arguments

Applicant's arguments with respect to claims 1-13 and 15-18 have been considered but are moot in view of the new ground(s) of rejection. Specifically, Grover et al. has been added to teach a keyboard having a disambiguation means for processing the comparison of characters of a defined language.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (703) 308-0797. The examiner can normally be reached on Monday - Friday 7:00-4:30.

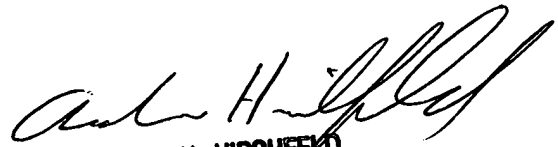
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfield can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding

is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MPC
October 31, 2002



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